D. Conclusion

In light of the foregoing, Applicants submit that all claims are in condition for allowance, and an early indication to that effect is earnestly solicited. The examiner is invited to contact the undersigned (512)536-3085 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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Date:

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APPENDIX A: MARKED UP COPY OF CLAIMS

26. (Amended) A method of breeding beef cattle to increase the probability of obtaining a progeny head of beef cattle comprising a predisposition for increased [or decreased] carcass or weaning weight, comprising the steps of:

selecting a first parent head of beef cattle comprising a genetic polymorphism genetically linked to promoter P1 of exon 1A of the bovine growth hormone receptor gene, wherein said genetic polymorphism is associated with increased [or

decreased] carcass or weaning weight; and

(b) breeding said first parent head of beef cattle with a second parent head of beef cattle to obtain at least a first progeny head of beef cattle comprising said polymorphism associated with a genetic predisposition for increased carcass weight or weaning weight.

- 27. (Amended) The method of claim 26, further comprising selecting said second parent head of beef cattle based on [a] said genetic polymorphism, and/or a second genetic polymorphism, genetically linked to promoter P1 of exon 1A of the bovine growth hormone receptor gene, wherein said genetic polymorphism, and/or said second genetic polymorphism is associated with increased or decreased carcass or weaning weight.
- 29. (Amended) The method of claim 26, wherein said genetic polymorphism is further defined as a polymorphism in a portion of the genome of said head of beef cattle corresponding to the nucleic acid sequence of SEQ ID NO:3.
- 30. (Amended) The method of claim 26, wherein said genetic polymorphism comprises a simple sequence length polymorphism.
- 41. (Amended) The method of claim 26, wherein said <u>genetic</u> polymorphism is further defined as a restriction fragment length polymorphism, simple sequence length polymorphism, amplified fragment length polymorphism, single nucleotide polymorphism or isozyme.
- 42. (Amended) The method of claim 26, wherein said genetic polymorphism is associated with increased carcass weight.
- 44. (Amended) The method of claim 26, wherein said genetic polymorphism is associated with increased weaning weight.
- 50. (Amended) The method of claim 49, wherein said first parent head of beef cattle is selected from a progeny head of beef cattle resulting from a previous repetition of said step (a) and said step (b) and wherein said second parent head of beef cattle is from a selected cattle breed into which one wishes to introduce said genetic predisposition for increased [or decreased] carcass or weaning weight.